BEFORE THE

Federal Communications Commission

WASHINGTON, D.C.

ORIGINAL FILE

In the Matter of	)	
	)	
Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum to the Mobile-Satellite Service Above 1 GHz for Low-Earth Orbit Satellites -- Request for Pioneer's Preference by Motorola Satellite Communications, Inc.	)	ET Docket No. 92-28 PP-32

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OFFICE OF THE SECRETARY

SUPPLEMENTAL COMMENTS OF AMSC SUBSIDIARY CORPORATION

AMSC Subsidiary Corporation ("AMSC"), by its attorneys, hereby submits these supplemental comments on that portion of the supplemental information filed by Motorola Satellite Communications, Inc. ("MSCI") in support of its above-referenced request for a Pioneer's Preference that is not subject to the Commission's Protective Order.[1/] As set forth herein, MSCI has

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1/ These supplemental comments are filed pursuant to the Commission's Public Notice, Mimeo No. 23116 (May 14, 1992). The deadline for filing comments on MSCI's supplemental material was subsequently extended from May 28, 1992 to today. See Public Notice, Mimeo No. 23328 (May 29, 1992).

These supplemental comments are directed only to the MSCI supplemental material that has been placed in the public record of the MSCI Pioneer's Preference proceeding. AMSC is today filing an Application for Review of the Protective Order issued by the Office of Engineering and Technology, which grants access to certain of the supplemental material only subject to a number of conditions. Protective Order, DA 92-674 (May 28, 1992). While these Comments include AMSC's observations of the nature of the protected material as it bears on MSCI's Pioneer's Preference request, AMSC has not examined this material. As discussed in the Application

(continued...)

not met the standard for grant of a Pioneer's Preference, and nothing in MSCI's supplementary material provides any further support for its request.

MSCI requested it be granted a Pioneer's Preference for its proposed non-geostationary MSS system, which would operate in the band presently allocated to the Radiodetermination Satellite Service ("RDSS") in the Earth-to-space direction.[2/] AMSC, which has shown that the public interest would be served best by reallocating a portion of this band to MSS and allowing AMSC to integrate those bands into its authorized system, filed an opposition to the Pioneer's Preference requests of MSCI and the

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1/(...continued)
for Review, there is a substantial risk that AMSC's examination of the protected materials would subject it to a trade secret misappropriation action by MSCI. AMSC is also today filing a Motion for Stay of further Commission examination or consideration of the protected material pending resolution of the issues raised in AMSC's Application for Review. AMSC has notified counsel for the other applicants of the filing of AMSC's Application for Review and Motion for Stay, and has requested that AMSC not be served with copies of any comments that contain or refer to the substance of the protected MSCI material.

2/ See Request for Pioneer's Preference of MSCI, PP-32 (July 30, 1991). Four other applicants for non-geostationary MSS systems to operate in portions of the RDSS bands have also requested a Pioneer's Preference for their proposals. See Request for Pioneer's Preference of Constellation Communications, Inc. ("Constellation"), PP-29 (February 20, 1992); Request for Pioneer's Preference of Ellipsat Corporation ("Ellipsat"), PP-30 (July 29, 1991); Request for Pioneer's Preference of Loral Qualcomm Satellite Services, Inc. ("Loral"), PP-31 (November 4, 1991); Request for Pioneer's Preference of TRW Inc. ("TRW"), PP-33 (September 6, 1991).

four other non-geostationary system applicants.[3/] AMSC demonstrated that none of these systems has sufficient technical merit to warrant the guaranteed license grant conferred by a Pioneer's Preference, and that none of the applicants has met its burden of demonstrating that its system is technically feasible. Moreover, AMSC noted that none of the non-geostationary system applicants propose to provide any new service, and that none of the systems features any technological innovations that would merit a Pioneer's Preference.

As to MSCI in particular, AMSC showed that nothing in MSCI's system represents any significant advancement beyond existing technology. Spot beam technology, which MSCI characterizes as an "innovative" aspect of its system, is not a new idea and in fact was proposed by AMSC in 1988. Another allegedly innovative element of MSCI's proposal, intersatellite links, has been used by NASA in its TDRSS system for more than a decade. While MSCI's proposal to operate bidirectionally in the same frequency band has not been proposed before for a satellite system, this idea is undeserving of a pioneer's preference because it is not new or workable. Specifically, bidirectional operation has already been implemented in radar communications systems such as the Federal Aviation Administration's Mode S system and MSCI's bidirectional operation will compound the serious interference MSCI's system will cause to other users of the RDSS bands.

3/ Consolidated Opposition of AMSC to Requests for Pioneer's Preference (April 8, 1992).

The other non-geostationary system applicants also opposed MSCI's Pioneer's Preference request. Like AMSC, these applicants pointed out that MSCI has not "pioneered" any of the technologies involved in its system, and that MSCI has not demonstrated that its complex and expensive system will work.[4/]

On April 10, 1992, two days after the deadline for filing comments on the RDSS-band Pioneer's Preference requests, MSCI submitted a Supplement to its Pioneer's Preference request. The Supplement was accompanied by a set of attachments that consist primarily of press articles on MSCI's system from 1990, before any comments on MSCI's application had been filed. The attachments also contain two sets of patent materials concerning elements of MSCI's system and a technical paper on the system composed in 1990 by MSCI scientist Dr. Raymond Leopold.

In addition to these "public" attachments, MSCI also submitted a set of materials for which it requested confidential treatment. A number of the competing RDSS-band applicants opposed this request, and three of the applicants -- Constellation, Ellipsat and TRW -- filed requests to review these materials under the Freedom of Information Act ("FOIA"). On May 4, 1992, the Chief of the Spectrum Allocation Branch of the

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4/ See Opposition of Constellation to Pioneer's Preference Request of MSCI (April 8, 1992), at 6-9; Opposition of Ellipsat to Pioneer's Preference Request of MSCI (April 8, 1992), at 10-14; Opposition of Loral to MSCI's Request for Pioneer's Preference (April 8, 1992), at 4-5; Opposition of TRW to Pioneer's Preference Request of MSCI (April 8, 1992), at 11-16.

Office of Engineering and Technology ("OET") partially granted and partially denied the FOIA requests.[5/] OET found that part of these materials -- a set of papers that MSCI described as being related to a Chinese patent application -- were not entitled to confidential treatment. OET found that the remainder of the materials were protected from public disclosure, and gave MSCI the option of requesting return of these materials (in which case they would not be considered in ruling on MSCI's Pioneer's Preference request), or agreeing to the release of the materials to Commission personnel and other "specified individuals" under a protective order.

In response, MSCI requested the return of some of the protected material and agreed to the disclosure of other materials pursuant to a protective order. On May 28, 1992, the Commission issued a Protective Order providing for the disclosure of the remaining protected material only to counsel for the RDSS-band applicants, to specified persons requested by counsel to furnish technical advice or service for the purpose of preparing filings in this proceeding, and to counsel's associated attorneys and support staff on a "need to know" basis.[6/] The material subject to the Protective Order apparently consists of several sets of documents related to MSCI patent applications, documents purporting to be preliminary results of propagation experiments,

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5/ Letter from David R. Siddall to Robert L. Mazer (May 4, 1992).

6/ Protective Order, DA 92-674 (May 28, 1992).

a videotape of a computer program purporting to be a simulation of MSCI's intersatellite links, and a videotape of a simulated voice transmission over MSCI's system.

None of the MSCI supplementary material that is part of the public record provides any further support for grant of a Pioneer's Preference to MSCI. The numerous news articles in MSCI's attachments indicate only that MSCI may be the most proficient applicant at publicizing its proposal. Nothing in these articles indicates that MSCI pioneered any technological innovations in connection with its system, and even if the articles did so indicate, they would be of insufficient probative value to support MSCI's claim to a Pioneer's Preference.

The various unprotected patent materials submitted by MSCI similarly are not determinative of MSCI's request.[7/] Comments were filed in the Pioneer's Preference rulemaking proceeding suggesting that "innovation" should be defined by patent guidelines.[8/] The Commission did not adopt such an approach, instead defining innovation to mean that "the petitioner . . . has brought out the capabilities or possibilities of the

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7/ One of the patents MSCI offers apparently will not even be used in MSCI's system. According to the paper by Dr. Leopold (Attachments to Supplement to Request for Pioneer's Preference, Tab B), non-deployable antennas will be used on MSCI's satellites. Id. at 4. However, the material that MSCI submits at Tab C of its Attachments is for a deployable antenna system.

8/ See Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488, 3493, para. 45 (1991), recon. granted in part, 7 FCC Rcd 1808 (1992).

technology or service or has brought them to a more advanced and effective state."[9/] That MSCI may have designed one or more technologies involved in its system differently in the patent sense does not mean that the technology involved is new, or that it advances or enhances the service.[10/]

The Chinese publication papers and the article by Dr. Leopold also are unsupportive of MSCI's request. These are essentially promotional pieces, providing descriptions of the system that for the most part can be found in MSCI's application. Like MSCI's application, however, these documents provide no evidence that MSCI is the innovator of any of the technology involved in its system, and do not answer the challenges of AMSC and others to the technical feasibility of MSCI's system.

AMSC has not examined any of the protected MSCI supplementary materials because any examination would present a substantial risk that AMSC later would be subject to a trade secret misappropriation action by MSCI. However, based solely on a review of a listing of the protected MSCI materials, it appears

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9/ Id. at 3494, para. 48.

10/ For example, one of the patents described in MSCI's material is a multiple-beam antenna system. See Attachments to MSCI's Supplement to Request for Pioneer's Preference (April 10, 1992), Tab C. However, AMSC proposed spot beam technology in its 1988 system application. See Application of AMSC, Gen. Docket No. 84-1234 (February 1, 1988).

that none of these materials are capable of adequately proving MSCI's entitlement to a Pioneer's Preference.[11/]

A number of the protected materials purport to be documents related to MSCI patents. As noted above, however, the grant of patents is not determinative of whether MSCI is entitled to a Pioneer's Preference.

The protected materials also purport to include preliminary results of propagation experiments conducted by MSCI, as well as a videotape of a computer program of a satellite link simulation and a videotape of a land mobile simulation of MSCI's system. While AMSC obviously would need to review these materials in order to comment meaningfully on them, the listed materials do not appear to support MSCI's claim of innovativeness. These materials would be expected not to demonstrate the novelty of the technology, but merely how it conceptually would operate.

Moreover, the propagation experiments and simulations described by MSCI would appear to leave unanswered many questions about the system's technical feasibility. For instance, MSCI apparently still needs to address the ability of its processors and software to handle and route a high-intensity level of calls throughout its very complex system. MSCI has never shown, and appears still not to have shown, how its system will avoid causing severe harmful interference to existing users in the bands where it is proposed to operate. Furthermore, MSCI has not

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11/ See Letter from Philip L. Malet to David R. Siddall (May 11, 1992).

demonstrated how its system would operate in the presence of interference from existing systems.

As shown above, the supplemental materials submitted by MSCI provide no further support for grant of its Pioneer's Preference request. AMSC therefore urges that MSCI's request be denied.

Respectfully submitted,

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Dated: June 12, 1992

DECLARATION

I, Thomas M. Sullivan, do hereby declare as follows:

1. I have a Bachelor of Science degree in Electrical Engineering and have taken numerous post-graduate courses in Physics and Electrical Engineering.

2. I am presently employed by Atlantic Research Corporation and was formerly employed by the IIT Research Institute, DoD Electromagnetic Compatibility Analysis Center.

3. I am qualified to evaluate the foregoing Supplemental Comments of AMSC Subsidiary Corporation. I am familiar with Part 25 and other relevant parts of the Commission's Rules and Regulations.

4. I received, in 1982, an official commendation from the Department of the Army for the establishment of international provisions for the worldwide operation of mobile earth stations.

5. I served as Technical Advisor to the U.S. Delegation to WARC-92 and participated in sessions of WARC-92 addressing frequency sharing and other aspects of MSS.

6. I have been involved in the preparation of and have reviewed the foregoing Supplemental Comments of AMSC Subsidiary Corporation. The technical facts contained therein are accurate to the best of my knowledge and belief.

Under penalty of perjury, the foregoing is true and correct.

12 June 1992
Date

Thomas M. Sullivan
Thomas M. Sullivan

CERTIFICATE OF SERVICE

I, Jacqueline L. Mateo, a secretary in the law firm of Fisher, Wayland, Cooper and Leader, hereby certify that true copies of the foregoing "Supplemental Comments of AMSC Subsidiary Corporation" were sent this 12th day of June 1992, by first class United States mail, postage prepaid, to the following:

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